

NATIONAL SHIPBUILDING RESEARCH PROGRAM  
SOCIETY OF NAVAL ARCHITECTS AND MARINE ENGINEERS  
SHIP PRODUCTION COMMITTEE  
PANEL SP-8  
INDUSTRIAL ENGINEERING

BATH IRON WORKS CORPORATION

Quality Defects Measurement and Control Systems

Task ES-8-23 .

FINAL REPORT

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Marinette Marine Corporation

Date: March, 1987

This project is managed and cost-shared by Bath Iron Works Corporation/Marinette Marine Corporation for the National Shipbuilding Research Program. The program is a cooperative effort of the Maritime Administration's Office of Advanced Ship Development, the U.S. Navy, the U.S. shipbuilding industry, and selected academic institutions.

Report Documentation Page				Form Approved OMB No. 0704-0188	
Public reporting burden for the collection of information is estimated to average 1 hour per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Washington Headquarters Services, Directorate for Information Operations and Reports, 1215 Jefferson Davis Highway, Suite 1204, Arlington VA 22202-4302. Respondents should be aware that notwithstanding any other provision of law, no person shall be subject to a penalty for failing to comply with a collection of information if it does not display a currently valid OMB control number.					
1. REPORT DATE <b>MAR 1987</b>		2. REPORT TYPE <b>N/A</b>		3. DATES COVERED <b>-</b>	
4. TITLE AND SUBTITLE <b>Quality Defects Measurement and Control Systems</b>				5a. CONTRACT NUMBER	
				5b. GRANT NUMBER	
				5c. PROGRAM ELEMENT NUMBER	
6. AUTHOR(S)				5d. PROJECT NUMBER	
				5e. TASK NUMBER	
				5f. WORK UNIT NUMBER	
7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES) <b>Naval Surface Warfare Center CD Code 2230 - Design Integration Tools Building 192 Room 128 9500 MacArthur Blvd Bethesda, MD 20817-5700</b>				8. PERFORMING ORGANIZATION REPORT NUMBER	
9. SPONSORING/MONITORING AGENCY NAME(S) AND ADDRESS(ES)				10. SPONSOR/MONITOR'S ACRONYM(S)	
				11. SPONSOR/MONITOR'S REPORT NUMBER(S)	
12. DISTRIBUTION/AVAILABILITY STATEMENT <b>Approved for public release, distribution unlimited</b>					
13. SUPPLEMENTARY NOTES					
14. ABSTRACT					
15. SUBJECT TERMS					
16. SECURITY CLASSIFICATION OF:			17. LIMITATION OF ABSTRACT <b>SAR</b>	18. NUMBER OF PAGES <b>92</b>	19a. NAME OF RESPONSIBLE PERSON
a. REPORT <b>unclassified</b>	b. ABSTRACT <b>unclassified</b>	c. THIS PAGE <b>unclassified</b>			

# QUALITY DEFECTS ANALYSIS

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## WELCOME TO QUALITY DEFECTS ANALYSIS

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## INTRODUCTION:

In February 1985 Bath Iron Works and Marinette Marine were awarded funding for TASK ES-8-23 Quality Defects Measurements which involved the development of a computer software package that would be universal for the use in any size shipyard. The Program is a measurement and control system in aiding the shipyard to reduce defects and material discrepancies by:

Rapidly identifying significant error causes in both rework and material discrepancies.

Separating significant from insignificant cost areas on an exception basis.

Generating reports highlighting the high cost areas of rework and material discrepancies.

Monitoring the results of corrective action taken in these areas.

After careful consideration the software package called Revelation by Cosmo was chosen for the project. In order to run this program the user is required to purchase their own run-time version of Revelation.\*

\*If unable to find a distributor of Revelation we will recommend one for you.

## TERMS AND CONVENTIONS

Certain terms and standard ways of indicating information are used in this manual and in the QUALITY DEFECTS ANALYSIS program. You should familiarize yourself with these terms and conventions before attempting to read this manual or use the QUALITY DEFECTS ANALYSIS program.

### TERMS:

Enter ..... Whenever you are asked to Enter some information as in "Enter END", it means you should type the word or characters indicated ( in the example END) and press the Enter Key. The Enter Key is known on a typewriter as the Return key and is in the same position as a Return Key on your keyboard.

ENTER. . . . . When the word ENTER appears in capitals, it indicates that the Enter Key is all that needs to be pressed. AS in "Press ENTER To Continue".

<E> ..... This is an abbreviation for ENTER and means you should press the ENTER Key. As in "Press <E> To Continue". This abbreviation for the Enter **key is** used throughout the QUALITY DEFECTS ANALYSIS Program and Manual.

Type ..... When you are asked to Type something, you should simply press the characters indicated without pressing the Enter Key afterward.

Press..... "Press X" is asking you to push down on the X Key once. No Enter Key is required.

Hold Down.. Sometimes you may be asked to

Hold Down a key and press another key as in "Hold Down ALT and Press P". This means while holding down the first key indicated, you should press the second key indicated once. This will also be shown with the + symbol. When you see this symbol you should know that it means to hold down the key indicated to the left of the + symbol and press the key indicated to the right of the + symbol.

## CONVENTIONS :

Capitals... In this manual a word typed in capitals indicates the actual Word to be entered into the computer. For example, "Enter RETURN" means to Type RETURN and Press the Enter Key. The only exception to this is when reference is made to the Enter Key itself. see ENTER above.

<> . . . . . Indicates an abbreviation as opposed to a literal. For example <E> stands for ENTER, not for the letter E.

[ ] . . . . . **S**quare brackets are used to indicate something that is mandatory in a Direct Command. For example, in the command "COUNT [File Name] ", a file name is required after the Direct Command COUNT. The brackets themselves should not be typed.

{ } . . . . . Braces are used to indicate something optional in a Direct Command. For example, in "COUNT [File Name] {With Clause}", the With Clause is optional. The braces themselves should not be typed.

" " or ' ' . . . Quotation marks, either single or double, indicate a literal character or characters to be typed. For example, "Type "C" To Continue", would indicate the character C should be



typed. Do not type the quotation marks.

() . . . . . Parentheses are used to list a default value as in "CONTACT (DEFAULT=JOHN DOE)?", or to indicate options as in "Is Printer On (Y/N)?". In the first case, pressing <E> will cause the name JOHN DOE to be entered as the CONTACT. In the second case the program is asking you to Enter a "Y" for Yes or an "N" for No.

## KEYS TO YOUR SUCCESS

Certain keys and keystroke combinations have special meaning to QUALITY DEFECTS ANALYSIS. QUALITY DEFECTS ANALYSIS also uses Function Keys and Cursor Control Keys.

You should take the time to familiarize yourself with the following keys as you will constantly be using most of them while working with QUALITY DEFECTS ANALYSIS.

## KEYS

### \ (BACKSLASH) OR CONTROL + L

The Backslash Key or the Control + L combination are used in Entry and report screens in response to prompts where for example, a record number is requested and where you wish instead to enter a name which is cross referenced to that record number.

Where.....The Backslash Key is located toward the bottom left of your keyboard on the second row from the bottom about 1/4 of the way from the left of the keyboard.

Markings...The Backslash Key has a (\) on the bottom half of the key and a ( 1 ) on the upper - half of the key.

### DESCRIPTION:

The Backslash or Control + L can be used when, for example, you know a RPT.NO but not its ID number.

For example, in response to a prompt which requests the ID number you may type a backslash followed by any word in the RPT.NO and then press the ENTER Key. You can also hold down the Control key and press the L key. You will be prompted for a value to locate. At this point you could enter the RPT.NO.

The program will look up the ID number and enter it for you. If there is more than one RPT.NO with the same word in it, the program will list all of them for you and you may then select the RPT.NO you want.

See also CONTROL KEY

## BACKSPACE KEY

The Backspace Key, also known as a destructive Backspace Key moves your cursor one character to the left and erases that character as the cursor moves over it.

Where.....It is located on the top row  
of your keyboard 3/4' to the  
right of the keyboard.

Markings. . . It is marked with a straight  
left -pointing arrow.

### DESCRIPTION:

The Backspace Key is used to erase characters you have just typed from the keyboard .

Each time you press the Backspace Key the character immediately to the left of the cursor is removed and the cursor moves one character to the left.

Once you have used the Backspace Key you Can type a new character to replace the one you just erased.

## CONTROL KEY

The control key is used in combination with other keys to execute certain functions or commands. This is done by holding down the Ctrl key and while holding down the Ctrl key you press and her key.

Where.....The control key is located on the lefthand side of the keyboard, just to the left of the A key.

Markings...The Control key is marked with the contraction Ctrl.

## DESCRIPTION:

If you press the Control key by itself nothing happens. The Control key is only useful when used in conjunction with another key. Think of the Control key as an extra "Shift" key on your computer. It "adds" or gives another meaning to the key you are pressing.

CONTROL + F1

The Control + F1 key combination is used to display the Help Screen for the TEXT option.

Where.....The F1 key is located at the  
complete left of the keyboard,  
on the top row.

Markings. . . The F1 key is simply marked  
with an F1.

DESCRIPTION:

When you are using the TEXT option either at Direct command level, in an Entry Screen or to input lengthy Multi-values, holding the Control Key and pressing the F1 key will display the TEXT Help screen.

See also CONTROL KEY

## DELETE KEY

The DELETE Key lets you delete text at the current cursor position. Each time you press it one character of text immediately above the Cursor will be deleted.

Where. . . . . The DELETE Key is located by the numeric keypad on the far right side of the keyboard, below the numeric keypad on the right. To use this key you must be sure that the Numlock key has not been previously pressed. If it has then press it once again.

Markings... The DELETE has the DEL on the lower part of the key and a period (.) on the upper part of the key.

## DESCRIPTION:

When you press the Delete key, characters directly above the cursor will be deleted one character at a time.

## END KEY

In an Entry Screen the END Key will cause the cursor to move to the end of the response line.

Where.....The END key is located on the numeric keypad on the far right side of the keyboard, To use this key you must be sure that the Numlock key has not been pressed previously. If it has then depress it once again.

Markings...The END key has a 1 on the upper part of the key and the word End on the lower part of the key.

## DESCRIPTION:

Pressing the END key while editing a misspelled line, will cause the cursor to move to the end of the line of text. For example, if you were editing the following line:

JOHN J. SMITH

and your Cursor was positioned at the beginng of the second word, pressing the END key would bring you to the end of the line. You could then backspace to erase "ITH" in JOHN J. SMITH and retype "YTH".



## ENTER KEY

The Enter Key is the last key you would press after you have typed something. It "enters" or submits what you have typed into the program. It's also used to tell the program to continue.

Where.....It is located midway down and 3/4 of the way toward the right of your keyboard. It holds the same position as the Return Key on a typewriter.

Markings...It is marked with a left pointing arrow which has an upturned stem. Don't confuse it with the Backspace Key which also has a left pointing arrow and is right above the Return Key!

## DESCRIPTION:

By far, the key you will be asked to press the most is the Enter Key. The Enter Key is your way of giving a signal to QUALITY DEFECTS ANALYSIS that you wish to proceed.

When you type characters from your keyboard, they appear on your screen. These characters, however, are not considered finalized until you OK them by pressing the Enter Key.

Until you press the Enter Key you are allowed to backspace over the characters and retype new characters. When you are satisfied with the characters on the screen, you then Press the Enter Key and then the characters on the screen are accepted.

There are times when the program wants to make sure you have performed a certain action (such as changing a diskette) and it asks you to "Press (E) To Continue". Pressing the Enter Key in this situation is a signal to the program to continue.

See also TERMS AND CONVENTIONS

## F2 FUNCTION KEY

This Key is to be used in single valued fields only.

This Key allows you to bring forward the current contents of the same field from the previous record.

Where.....The F2 key is located at the  
far left side of the keyboard,  
on the function keypad.

Markings...The F2 Key is simply marked  
with an F2.

## DESCRIPTION:

When you are in an Entry Screen and you wish to repeat the last Entry you made from a previous record, you may press the F2 key one or more times. Pressing this key will cause the contents of the current field to be filed with the contents of the same field of the previous record.

## F7 FUNCTION KEY

This Key is useful when you are in an Entry Screen, Direct Command or other "TEXT" situation and you wish to clear text to the beginning of a line.

Where. . . . . The F7 key is located at the  
                  **complete left of the** keyboard,  
                  on the function keypad.

**Markings...** The F7 key is simply marked  
                  with an F7.

## DESCRIPTION:

The F7 key will clear to the beginning of the line you are on and text to the right of the cursor will be moved left to the beginning of the line.

## F8 FUNCTION KEY

This Key is useful when you are in an Entry Screen, Direct Command or other "TEXT" situation and you wish to clear text to the end of a line.

Where. . . . . The F8 key is located at the  
complete left of the keyboard,  
on the function keypad.

Markings. . . The F8 key is simply marked  
with an F8.

### DESCRIPTION:

The F8 key will clear to the end of the line you are on. Text left of the cursor will remain unchanged.

See also TEXT.

## HOME KEY

In an Entry Screen or at a Direct Command (colon prompt) the HOME Key will cause the cursor to return[ to {the start of the response line.

Where. . . . . The Home Key is located at the bottom right hand side of the keyboard, on the numeric keypad. To use this key you must be sure that the Numlock. key has not been pressed previously. If it has then depress it once again.

Markings. . . The Home key has a 7 om the upper part of the key and the word home on the lower part of the key.

## DESCRIPTION:

The Home key will allow you to reenter a misspelled line. When the Home key is pressed, the cursor is repositioned at the beginning of a response line.

## INSERT KEY

The INSERT Key lets you insert text at the current cursor position. It must be pressed once again to exit the insert mode.

Where. . . . . The INSERT Key is located by the numeric keypad on the far right side of the keyboard, below the numeric keypad. To use this key you must be sure that the Numlock key has not been previously pressed. If it has then press it once again.

Markings. . . The INSERT Key has INS on the lower part of the key and a zero on the upper part of the key.

## DESCRIPTION :

When you press the INSERT key, all the keystrokes from that point on are inserted at the cursor position. Characters to the right of the cursor are moved to the right to make room for the characters you are inserting. To disable the Insert mode, simply press the INS key again.

When INSERT is disabled, characters that are typed overwrite characters above and to the right of the cursor.

## LEFT AND RIGHT ARROW KEYS

The Left and Right arrow keys are used to move the cursor either left or right one character without deleting text.

Where.....The Left and Right arrows are located on the numeric keypad on the far right side of the keyboard. To use these keys, you must be sure that the Num lock key has not been pressed previously. If it has then press it once again.

Markings...The Left arrow key has a 4 on the upper part of the key and a small arrow on the lower part of the key. The Right arrow has a 6 on the upper part of the key and a small arrow on the lower part of the key.

## DESCRIPTION:

The arrow keys need not be entered. The Left arrow will cause the cursor to move to the left one character without erasing anything. The Right arrow will cause the cursor to move to the right one character without erasing anything.

## CONTROL + LEFT OR RIGHT ARROWS

The Left and Right arrow keys, when used with the Control key, are used to move the cursor either left or right one word without deleting text.

Where... . . . . The Left and Right arrows are located on the numeric keypad on the far right side of the keyboard. To use these keys you must be sure that the Num lock key has not been pressed previously. If it has then depress it once again.

Marking. . . The Left arrow key has a 4 on the upper part of the key and a small arrow on the lower part of the key. The Right arrow has a 6 on the upper part of the key and a small arrow on the lower part of the key.

## DESCRIPTION:

The arrow keys need not be entered. The Control + Left arrow combination will cause the cursor to move to the left one word without erasing anything. The Control + Right arrow combination will cause the cursor to move to the right one word without erasing anything.

See also CONTROL KEY



? (QUESTION MARK) OR F1

The Question Mark or F1 are used to elicit help from the program when you are in an Entry Screen.

Where.....The Question Mark is located on the bottom row of your keyboard about 2/3 of the way toward the right side. To type a question mark, you need to hold down the Shift Key and then press the Key with the Question Mark on it. The F1 key is located at the complete left of the keyboard, on the top row.

Markings. . . The Question mark Key has a Question Mark ( ? ) on the upper part of the key. and a slash mark ( / ) on the bottom of the key. The F1 key simply has an F1 on it.

#### DESCRIPTION:

The Question Mark needs to be entered. That is, after Typing a Question Mark, you need to press the Enter Key. . . .

The F1 key need not be entered, meaning that you do not need to press the enter key after having pressed the the F1 key.

The Question mark function only works in Entry Screens.

When you Enter a Question Mark, or hit the F1 key from any prompt in an Entry Screen, the program changes screens and gives you a description of the prompt you are on.

After reading the help description, you press the Enter Key to return to the prompt in the Entry Screen.

SHIFT + F1

The Shift + F1 key combination is used to display the edit and pattern checks for the current field.

Where.....The F1 key is located at the  
complete left of the keyboard,  
on the top row.

Markings. . . The F1 key is simply marked  
with an F1.

#### DESCRIPTION:

The Shift + F1 key combination will allow you to check what form a response needs to take. For a clearer explanation of pattern checks go to the appropriate Entry Screen section of this manual and read the prompt description.

## UP AND DOWN ARROW KEYS

The Up and Down arrow keys are used only in Entry Screens to move Up or Down one prompt.

Where.....The Up and Down arrow keys are located on the numeric keypad on the far right side of the keyboard. To use these keys you must be sure that the Num lock key has not been previously pressed. If it has then depress it again one time.

Markings...The Up Arrow key has an 8 on the upper part of the key and a small arrow on the lower part of the key. The Down Arrow key has a 2 on the top part of the key and a small arrow on the bottom part of the key.

## DESCRIPTION:

The Arrow keys need not be entered. Pressing the Up arrow key will cause your cursor to move up one to the previous Entry Screen prompt, and position itself at the beginning of the response line. Information may now be entered again. Pressing the Down arrow key will cause your cursor to move down one to the next Entry Screen prompt, and position itself at the beginning of the response line. Information may now be entered and you may go on.

## KEYS - FUNCTION CROSS REFERENCE

Cross reference....\ BACKSLASH-CONTROL + L  
Destructive backspacing.....BACKSPACE KEY  
Used with other keys.....CONTROL KEY  
Displays help for TEXT....CONTROL KEY + F1  
Delete at cursor position.....DELETE KEY  
Go to end of line.....END KEY  
Enter command into program.....ENTER KEY  
Copy previous field.....F2 FUNCTION KEY  
Clear to start of line.....F7 FUNCTION KEY  
Clear to end of line.....F8 FUNCTION KEY  
Go to beginning of line.....HOME KEY  
Insert at cursor position.....INSERT KEY  
One character L or R.....L & R ARROWS  
One word L or R.....CONTROL + L & R ARROWS  
Help.....? QUESTION MARK KEY  
Display pattern checks.....SHIFT KEY + F1  
Go up or down a prompt....UP & DOWN ARROWS

## COMMAND PERFORMANCE

Commands are special words which QUALITY DEFECTS ANALYSIS recognizes and which cause QUALITY DEFECTS ANALYSIS to perform specific functions. For example, the command you will use the most is: END. Typing END and pressing the Enter Key in response to a prompt will cause QUALITY DEFECTS ANALYSIS to quit whatever you were doing and return you to your last menu screen.

Commands are Entered. This means, after typing the Command word or words, you must press the Enter Key to execute the Command.

Some Commands, such as TOP, are specific to certain sections of the QUALITY DEFECTS ANALYSIS program and have no meaning in other sections. Others, such as END, have meaning and will work almost everywhere in QUALITY DEFECTS ANALYSIS.

The Commands you can use in QUALITY DEFECTS ANALYSIS are listed alphabetically in this section of the manual. Following the initial description of each Command are the words "Entry", "Reports" and "Direct Command". Three asterisks under each of the above words indicates that the command works in that section of the program.

Thus, three asterisks under the word "Entry" indicates that the Command works in Entry Screens. No asterisks under the word "Reports" indicates that the command is not used when you are generating reports.

A "Direct Command" is a command that is entered at the colon prompt, or at what is known to REVELATION as TCL, or Terminal Control Level.

The one place in the program where almost no Commands will work is in Menu Screens. Menu Screens will only accept a number as a valid response to the selection prompt, although END and certain function keys will work.

You should take the time to read about each Command and what it does. For your convenience, listed below are some of the most commonly used commands grouped by the section of the program in which they are most commonly used.

### Entry Screens

END	EXECUTE	DELETE
-----	---------	--------

FILE	PERFORM	TOP
CLEAR	DONE	
Direct Command		
DIR	END	COUNT
HELP	LIST	SELECT
SO RT	SUM	RETURN
PC	--	EXIT
Reports & Utilities		
Y (Yes)	N (No)	END

If you have not already done so, you should also review the "Keys To Your Success" section of this manual to get a full understanding of what you can do within QUALITY DEFECTS ANALYSIS.

CLEAR OR CONTROL + C

Used in entry screens to erase associated entries which follow a WHICH VALUE prompt.

Entry            Reports    Direct Command  
\*\*\*

When you are in an entry screen and are presented with a WHICH VALUE prompt, you may Enter CLEAR or Control + C to erase all entries to which the WHICH VALUE prompt refers.

The entries which will be cleared are those preceded by a number and a ">" symbol (i.e. 01> )

The CLEAR command should only be used after a WHICH VALUE prompt.

Also see Multi-valued keystrokes and CONTROL KEY.

COUNT [FILE NAME] {WITH CLAUSE}

Used to count the total number of records in a file, or, if used with a WITH Clause, will count the number of records that conform to the WITH Clause.

Entry	Reports	Direct Command
		***

For example, to get a count of how many QDS are in the QD file, Enter the following command from your Direct Command prompt:

COUNT QD

To get a count of how many QDS with an RPT.NO of MDR\*12345 are in the QD file, Enter:

COUNT QD WITH RPT.NO = "MDR\*12345"

The COUNT Command is useful to get a quick idea of the size of your data files.



## DELETE CONTROL + D

Will entirely delete the information displayed on the screen from the DISK. There is no way to recover information once it has been DELETED.

Entry            Reports    Direct Command  
\*\*\*

The DELETE Command only works at the CHANGE prompt of an Entry Screen. Entering DELETE or Control + D will cause the program to ask you to confirm that you actually wish to delete the record by typing DELETE a second time. When you type DELETE or Control + D the second time, the record is permanently removed from the disk.

CAUTION: Unless you have entered something into a file that never should have been there in the first place, there is usually no reason to use the DELETE Command.

You can edit records rather than delete them.

Also see CONTROL KEY

DIR {D:} {FILESPEC}

Used to get a Directory of a disk drive. Type DIR, a space and the Drive Designator A: or B: or C: or D:. If you just wish to check if a specific file exists on the designated drive, you can also type the file name after the Drive Designator.

Entry	Reports	Direct Command
		***

This Command is identical to the DOS DIR Command described in your DOS Operating System manual. Any of the syntax including pathnames and options which work with your DOS DIR Command will work from within QUALITY DEFECTS ANALYSIS.

Using the Command, DIR B:/W is useful to check for available space on your data disk in floppy disk based systems.

DONE

Used to "jump out of" a group of associated prompts and return to the CHANGE prompt from a Multivalued Field in an entry screen.

Entry       Reports    Direct   Command  
\*\*\*

When in the process of entering information into prompts which are preceded by a WHICH VALUE prompt, you may enter DONE to skip additional related prompts and return to the CHANGE prompt at the bottom of the entry screen.

Pressing ENTER in response to the first prompt preceded by a number and the ">" symbol (i.e. Q1) ) has the same effect.

The DONE command should only be entered when working with associated prompts.

END OR CONTROL + E

Enter END to exit whatever section of the program you are in and return to a Menu.

Entry	Reports	Direct Command
***	***	

The END Command can be used at almost any prompt in the program.

Entering END will cause QUALITY DEFECTS ANALYSIS to exit out of whatever section of the program you may be in and return you to the last Menu you made a selection from.

Regardless of what a prompt may be requesting, you may enter END and you will be returned to a Menu.

CAUTION: If you are in an entry screen into which you have entered information and you Enter END at the CHANGE prompt or any where else on that screen, the new information you entered on that screen will NOT be saved to disk.

Therefore, after entering information into an entry screen and making any necessary changes, you should press the Enter Key at the CHANGE prompt. This will save the information you entered and present you with a new, cleared screen. When you are on the cleared screen, then Enter END to return to Menu.

Do not use END to exit a Menu or a Direct Command prompt. To exit from a Menu simply press the F9 key. To return from the Direct Command prompt which is one or more colons (:) Enter the Command RETURN.

Also see the CONTROL KEY

## EXECUTE

Used to execute a Direct Command or another section of the QUALITY DEFECTS ANALYSIS program from an Entry Screen. After an EXECUTE terminates, you are returned to the original Entry Screen at the point where you left off. (See also PERFORM)

```
Entry      Reports  Direct Command
***
```

EXECUTE allows you to execute a Direct Command or go to a second Entry Screen from any prompt of the Entry Screen you are in. For example, let's say you are entering a QD into the QD Entry Screen. You come to the CODE prompt and when you enter the information, QUALITY DEFECTS ANALYSIS tells you the CODE doesn't exist in your QD.HIST file.

You decide, at this point, that you would like a listing of all your QD.HISTS alphabetically by CODE. To do this you would enter in at the CODE prompt:

```
EXECUTE LIST QD.HIST BY CODE
```

Your screen would change and the program would then list, in alphabetical order, all of the CODES in your QD.HIST file. After the last CODE is listed, you are instructed to press the Enter Key to return to your Entry Screen. Pressing the Enter Key will return you to exactly where you left off.

You realized from your listing that the CODE was never entered into the QD.HIST file, so you now wish to enter this CODE into the QD.HIST file. To do this you could enter the following at the CODE prompt.

```
EXECUTE QD.HIST ENTRY PROGRAM
```

The appropriate Entry Screen would then come up. Control is transferred to the program and returned to where you left off when the program is exited.

CAUTION: If you use EXECUTE to move to a second Entry Screen from the first, always return to the first Entry Screen before using the EXECUTE Command again. While it is possible to use the EXECUTE Command

in the second Entry Screen to move to a third Entry Screen, it is strongly NOT recommended.

Doing so could cause your program to stop running and you would have to restart the program.

## FILE

Only used at the CHANGE prompt in an Entry Screen. Entering FILE at the CHANGE prompt will save the information on that screen to disk.

Entry       Reports    Direct Command  
\*\*\*

It is not necessary to use the FILE Command to save records to disk. Simply pressing the Enter Key at the CHANGE prompt will cause QUALITY DEFECTS ANALYSIS to save the information on that screen to disk and present you with a new cleared screen.

LIST [FILE NAME] {FIELD NAMES... } {WITH  
CLAUSE} {BY CLAUSE} {(P)}

Used to list all or selected records from a file, showing specific fields, to either the printer or the screen.

Entry        Reports    Direct Command  
                         \*\*\*

For example, to list RPT.NOS in the QD file, Enter the following command from your Direct Command prompt:

LIST QD RPT. NO

To get a LIST of CODES showing only entries matching MDR\*12345 then Enter:

LIST QD.HIST WITH CODE = "CA10"

To get a LIST of QD.HIST showing CODE sorted in alpha numerical order of CODE Enter:

LIST QD.HIST CODE BY CODE

To send any listing to a printer add "(P)" to the end of the statement.

The LIST Command is useful for generating a custom report on any data file where you need to see specific fields or have the listing sorted in a particular order.



## PERFORM

Used to select a group of related records from a file and have them displayed one at a time on an Entry Screen.

Entry            Reports    Direct Command  
\*\*\*

PERFORM allows you to bring a selected group of records into an Entry Screen one at a time. For example, let's say that for some reason you need to find all the CODES in the QD.HIST file that match CA10.

You would type, at any Entry Screen prompt:

```
PERFORM SELECT QD. HIST WITH CODE = "CA10"
```

The program will now select out of the QD.HIST file all QD.HISTS with a CODE of CA10. Once it has done this, the first record selected will be displayed on the screen. You could now edit this first record. Whether or not you do so, when you press the Enter Key at the change prompt, the next QD.HIST that the program had selected will be displayed on the screen.

PERFORM used in conjunction with a SELECT Direct Command is a powerful and easy way of mass updating or reviewing selected records in a file.

NOTE: The difference between EXECUTE Command and the PERFORM Command is: EXECUTE is used when you want to "jump" to, another section of the program and run it independently of the Entry Screen you jumped from. PERFORM is used when you want to run a Direct Command and have the results of that Direct Command "fed into" the Entry Screen you are in.

To exit a PERFORM Command before it has finished bringing up all the records it has selected, simply Enter END at the CHANGE prompt.

CAUTION: When using a PERFORM  
SELECT {file} Command, the file you  
select from must be consistent with  
the Entry Screen you are using.

PC -> EXIT

These two commands allow you bring up DOS operating system from within QUALITY DEFECTS ANALYSIS and then return to the QUALITY DEFECTS ANALYSIS program.

Entry	Reports	Direct Command
		***

## PC

This command should be executed at the Direct Command prompt or TCL. When this command is entered, control is turned over to the DOS operating system.

Once in DOS you may change disks, execute any DOS command, call up any other application program you may have on the hard or changed disks, etc.

When you are finished using DOS, YOU SHOULD MAKE SURE THAT THE ORIGINAL QUALITY DEFECTS ANALYSIS PROGRAM DISK YOU WERE USING IS BACK IN ITS ORIGINAL DRIVE AND THE ACTIVE DIRECTORY IS THE SAME AS WHEN YOU EXITED TO DOS. CAUTION: If the original diskettes you had in the computer when you issued the PC Direct Command are not in the same drives when you return to QUALITY DEFECTS ANALYSIS, YOUR QUALITY DEFECTS ANALYSIS program may stop running and you then have to restart your computer.

To return from DOS back to QUALITY DEFECTS ANALYSIS, Enter the Command EXIT. As soon as you do this you will see the Direct Command prompt which is one or more colons (:).

To return to the Main Menu, Enter the Direct Command RETURN. See RETURN.

RETURN

Used to exit from the colon prompt. You are in Direct Command mode when your prompt is one or more colons (:).

Entry	Reports	Direct Command
		***

When you are in Direct Command mode the QUALITY DEFECTS ANALYSIS program releases control and puts you in direct contact with the Revelation operating system.

You know you are in Direct mode when your prompt is one or more colons (:).

To return to QUALITY DEFECTS ANALYSIS, from Direct Command Enter:

RETURN

You will be sent back to your QUALITY DEFECTS ANALYSIS Main Menu.

```
SELECT [FILE NAME] {FIELD NAMES. ..}-  
{WITH CLAUSE} {BY CLAUSE} {(P)}
```

Used to select all or selected records from a file. The selected records can then be sent to a LIST command or other system function.

```
Entry      Reprints    Direct Command  
***
```

This command is similar in syntax to the LIST command. The difference is SELECT will not automatically print the records requested.

Instead, SELECT will select the records requested and present you with " > " prompt. The next command you now enter will use the records previously selected by the SELECT Command.

For example, if you had a mailing list file and you wanted to print out the mailing labels only for addresses with the zip code "92345", from your Direct Command Prompt (colons) Enter:

```
SELECT ADDRESSES WITH ZIP = "92345"
```

Enter RETURN to go back to your Main Menu.

See the LIST Command for more details on how to construct a SELECT Command.

```
SORT [FILE NAME] {FIELD NAMES. ..} {WITH  
  CLAUSE} {BY CLAUSE }{ (P) }
```

Used to sort all or selected records from a file showing specific fields to either the printer or the screen.

```
Entry      Reports  Direct Command  
***
```

This command is very similar to the List command. The only difference is SORT will automatically sort the requested listing by the first field (usually the record number or ID) of the file.

See the LIST Command in this chapter for more details on how to construct a SORT Command.

SUM [FILE NAME] [FIELD NAME] {WITH  
CLAUSE}

Used to sum the total of a specific field in a file, or if used with a WITH Clause, will sum that field only in the records that conform to the WITH Clause.

Entry            Reports    Direct Command  
                         \*\*\*

For example, to get a sum of a certain field in a fictitious file, Enter the following command from your Direct Command prompt:

SUM FILENAME FIELDNAME

The SUM Command is useful to get a quick total of one of the numerical fields in your data files.

TOP OR CONTROL + T

Clears the present Entry Screen of previously entered information and presents you with a clean Entry Screen.

Entry       Reports    Direct Command  
\*\*\*

The TOP Command or Control + T may be entered in response to any prompt in an Entry Screen. Entering TOP causes all entered information to be removed from the screen and a fresh screen to be displayed. Any information entered into that screen prior to Entering TOP is discarded and not saved.

TOP is used when the information you have Entered is in error and you wish to clear the screen and start over.

## TEXT

This Command is used only in Entry Screens. When entering lengthy multi-value fields into a file, you may use this option.

Entry       Reports    Direct Command  
\*\*\*

This Command may be entered at any multi-value prompt in an Entry Screen. Doing so will allow you to use the full screen editing features of the Revelation system.



## MULTI-VALUED KEYSTROKES/COMMANDS

The below listed commands are only valid when used at the WHICH VALUE prompt. The multi-value prompt occurs in an Entry Screen, when you are changing multi-values. When you change multi-values you are prompted for a value to change at the WHICH VALUE prompt. Any of the following commands could be entered at that prompt.

ADD OR CONTROL + A

This command will allow you to add multiple values to a file at the WHICH VALUE prompt, in an Entry Screen. When you are prompted for a value, you can enter this command if you wish to add value.

Entry	Reports	Direct Command
***		

When this command is entered, you are allowed to enter additional values into multi-valued fields. You can either type in the full word ADD, or hold down the control key and press the A key.

Also see the CONTROL KEY.

CLEAR OR CONTROL + C

This command lets you clear a multi-value from a field at the WHICH VALUE prompt, in an Entry Screen. When you are prompted for a value, you can use this command to clear the entire field.

Entry       Reports    Direct Command  
\*\*\*

When this command is entered, all of the values of the current field are cleared from the screen. You are then returned to the WHICH VALUE prompt. You can either type in the full word CLEAR, or just hold down the Control key and press the C key.

Also see the CONTROL KEY.

CONTROL + D OR D (followed by a number)

The DELETE or Control + D or D commands allow you to delete a multi-value in an Entry Screen, at the WHICH VALUE prompt. You can either use the full word DELETE or you can hold down the Control key and press the D key, or just the D key followed by a number.

Entry	Reports	Direct Command
***		

When you use the Control + D combination, you will be prompted for the number of the value to delete. Just hit the appropriate number key. If you just use the D key, follow it by the number of the prompt you want deleted and press the Enter key. The value that you specified will be deleted.

Also see the CONTROL KEY.

CONTROL + I OR I (followed by a number )

The INSERT, or the Control + I, or the I commands allow you to insert a value between two existing multi-values at the WHICH VALUE prompt in an Entry Screen. You can either use the full word INSERT, or you can hold down the Control key and press the letter I, or just hit the letter I followed by a number.

Entry       Reports    Direct Command  
\*\*\*

When you enter the INSERT command you are prompted for a value to insert before in a field. When you use the Control + I combination, you will be prompted for the number of the value to insert before. Just hit the appropriate number key. If you just use the I key, follow it by the number of the prompt you want to insert before, and press the Enter key. You will then be prompted to enter the new value.

Also see the CONTROL KEY.

## PAGE UP OR B

These keys can be used to display unseen multi-values when they will not all fit in an Entry Screen. These keys will only work when used at a WHICH VALUE prompt. The B command must be Entered, meaning that the ENTER Key must be pressed after typing the B key. PgUp does not need to be entered.

Where. . . .The PAGE UP OR PgUp key is  
located on numeric keypad on  
the right side of the  
keyboard.

Marking. .. The PgUp key has a 9 on the  
upper part of the key, and  
PgUp on the lower part of  
the key. To use this key  
you must be sure that the  
Numlock key has not been  
previously pressed. If it  
has then depress it once  
again.

## DESCRIPTION:

When you are in an Entry Screen and the file you are in. has a multi-valued field that is too long to be displayed on the screen, then using these commands will allow you to shift or "window" the multi-values that are displayed.

#### PAGE DOWN OR F

These keys can be used to display unseen multi-values when they will not all fit in an Entry Screen. These keys will only work when used at a WHICH VALUE prompt at a multi-value entry. The F command must be Entered, meaning that the ENTER Key must be pressed after typing the F key. PgDn does not need to be entered.

Where. . . . . The PAGE DOWN OR PgDn Key is located on numeric keypad on the right side off the keyboard.

Markings. . . The PgDn key has a 3 on the upper part of the key, and PgDn on the lower part of the key. To use this key you must be sure that the Numlock key has not been previously pressed. If it has been, then press it once again.

#### DESCRIPTION:

When you are in an Entry Screen and the file you are in has a multi-valued field that is too long to be displayed on the screen, then using these commands will allow you to shift or "window" the multi-values that are displayed.

\*\*\* QUALITY DEFECTS PROGRAM -MAIN MENU \*\*\*  
03:28:09 27 OCT 1986

1. ADD NEW DETAIL RECORDS
2. CHANGE DETAIL RECORDS
3. -- DEPARTMENT DATA UPDATE
4. -- CODE DATA UPDATE
5. REPORT MENU
6. RUN HISTORY UPDATE
7. HISTORY INQUIRY
8. EXIT REVELATION

F5=Toggle MAIN/LAST menu    Ctl-F5=TOL F9=END menu    Return=Run menu option

Menu Choice 1: THE PROGRAM ADDS NEW RECORDS FOR THE PRESENT MONTH

Menu Choice 2: THIS PROGRAM IS USED TO "CORRECT" , PREVIOUSLY ENTERED DATA

Menu Choice 3: USED TO UPDATE DEPARTMENTS, RATES TOTAL HOURS

Menu Choice 4: USED TO UPDATE CODE INFORMATION

Menu Choice 5: USED TO RUN PROGRAMMED REPORTS

Menu Choice 6: USED TO TRANSFORM DETAIL RECORDS INTO HISTORY RECORDS - SEE DOCUMENTATION After selecting this menu choice you will be prompted to enter a password. The password is "HIST"

Menu Choice 7: USED TO LOOK AT HISTORICAL RECORDS

Menu Choice 8: USED TO LOGOFF REVELATION

QD. ADD \* \* \* NEW ITEM ENTRY FOR QUALITY DEFECTS \* \* \*

01	TYPE	02	RPT.ND	03	RPT.DATE
04	DEPT	05	FUN		
06	PROJ				
07	HULL	08	JDB		

CODES : (TO ADD NEW CODE TYPE - PERFORM CODES - AT PROMPT 9-11)

09	DEFECT
10	CAUSE
11	DISP
12	COST

13	RESP.DEPT	14	HOURS
		15	RATE
		16	LAB.COST
		17	MAT.COST

TOT.COST

TYPE OF REPORTING FORM ? . . . . .



\*\*\* NEW ITEM ENTRY FOR QUALITY DEFECTS \*\*\*

\*\*\* NEW ITEM ENTRY FOR QUALITY DEFECTS \*\*\*

This program adds new entries for the present month to the basic detail level data.

01 TYPE . . . . .

This represents the type of quality defect reporting mechanism being utilized, i.e. The program in effect. At b.i.w. This could be "MDR" (material discrepancy report), etc. But anybody can put in thier own acronym.

This is a required entry. You must must enter something in response to this prompt. Pressing the Enter key alone, will cause the last answer you entered for this same prompt on the previous screen and now displayed at the bottom of the screen to be entered. To change information already entered, enter 1 at the CHANGE prompt and enter the new information for this prompt.

There are no restrictions on the type of information which can be entered here.

02 RPT. NO

This is the specific record number (memo #, mdr #, hpr #) which represents a unique report.

This is a required entry. Therefore, you must enter something in response to this prompt. To change this entry after information has been entered into, type 2 at the CHANGE prompt and enter the new information for this prompt.

There are no restrictions on the type of information which can be entered here.

03 RPT.DATE MM/DD/YY

The date of the report (mdr, hpr, etc) .

This is not a required entry. You may skip it by entering NULL. Pressing the Enter key alone, will cause the last answer

\* \* \* NEW ITEM ENTRY FOR QUALITY DEFECTS \* \* \*

you entered for this same prompt on the previous screen and now displayed at the bottom of the screen to be entered. To change information already entered, enter 3 at the CHANGE prompt and enter the new information for this prompt.

An entry conforming to the following is acceptable: A date. The ways of entering a date are: MM/DD/YY OR MM-DD-YY OR M/D/YY or M-D-YY or MMDDYY or MM/DD/YYYY or MM-DD-YYYY. (where M stands for the number of the month, D for the number of the day, and Y for the number of the year)

For example, to enter the date JANUARY 1, 1995, you may enter:

01/01/95	(or 1995)
01-01-95	(or 1995)
1/1/95	(or 1995)
1-1-95	(or 1995)
010195	(or 1995)

Any of the above entries may be reformatted by the entry screen program after you enter the date.

04 DEPT . . . . .

The department making the report.

This is a required entry. You must must enter something in response to this prompt. Pressing the Enter key alone, will cause the last answer you entered for this same prompt on the previous screen and now displayed at the bottom of the screen to be entered. To change information already entered, enter 4 at the CHANGE prompt and enter the new information for this prompt.

There are no restrictions on the type of information which can be entered here.

05 FUN . . . . .

This is location of the job being performed where the problem showed up.

This is not a required entry. You may skip it by entering NULL. Pressing the Enter key alone, will cause the last answer you entered for this same prompt on the previous screen and now displayed at the bottom of the screen to be entered. To

**\* \* \* NEW ITEM ENTRY FOR QUALITY DEFECTS \* \* \***

change information already entered, enter 5 at the CHANGE prompt and enter the new information for this prompt

There are no restrictions on the type of information which can be entered here.

**06 PROJ**

This field is used to identify unique project or contract numbers.

This is not a required entry. You may skip it by entering NULL. Pressing the Enter key alone, will cause the last answer you entered for this same prompt on the previous screen and now displayed at the bottom of the screen to be entered. To change information already entered, enter 6 at the CHANGE prompt and enter the new information for this prompt.

An entry conforming to the following is acceptable: A number between 8000 and 9999.

**07 HULL . . . .**

The hull being repro-tes on.

This is not a required entry. You may skip it by entering NULL. pressing the Enter key alone, will cause the last answer you entered for this same prompt on the previous screen and now displayed at the bottom of the screen to be entered. To change information already entered, enter 7 at the CHANGE prompt and enter the new information for this prompt.

There are no rest restrictions on the type of information which can be entered here.

**08 JOB . . . . .**

Identifies the particular job being perform.

This is not a required entry. You may skip it by pressing the Enter key. To change information already entered, enter 8 at the CHANGE prompt and enter the new information for this prompt.

\* \* \* NEW ITEM ENTRY FOR QUALITY DEFECTS \* \* \*

There are no restrictions on the type of information which can be entered here.

09 DEFECT . . . . .

The defect code which is found on the code list which should be completed before entering any data. But if for any reason it is not on the list all the user has to do is type . . perform codes which will bring up the code update list which can then be updated with the new Code. Then the user should press <e> to return the input screen where they left off.

This is a required entry. You must enter something in response to this prompt. Pressing the Enter key alone, will cause the last answer you entered for this same prompt on the previous screen and now displayed at the bottom of the screen to be entered. To change information already entered, enter 9 at the CHANGE prompt and enter the new information for this prompt.

There are no restrictions on the type of information which can be entered here.

10 CAUSE . . . . .

The cause defect in question. Again, if it does not exist follow the same instructions as for defect code.

This is a required entry. You must enter something in response to this prompt. Pressing the Enter key alone, will cause the last answer you entered for this same prompt on the previous screen and now displayed at the bottom of the screen to be entered. To change information already entered, enter 10 at the CHANGE prompt and enter the new information for this prompt.

There are no restrictions on the type of information which can be entered here.

11 DISP . . . . .

The disposition code of the material in question. Again if it

\* \* \* NEW ITEM ENTRY FOR QUALITY DEFECTS \* \* \*

does not exist follow the same instructions as for defect code.

This is a required entry. you must must enter something in response to this prompt. Pressing the Enter key alone, will cause the "QUOTES" at the bottom of the screen to be entered. To change information already entered, enter 11 at the CHANGE prompt and enter the new information for this prompt.

There are no restrictions on the type of information which can be entered here.

12 COST . . . . .

The cost responsiblity code in question. Again if it does not exist follow the same intructions as for defect codes.

This is a required entry. You must enter something in response to this prompt. Presssing the Enter key alone, will. cause the last answer you entered for this same prompt on the previous screen and, now displayed at the bottom of the screen to be entered. To change information already entered, enter 12 . at the CHANGE prompt and enter the new information for this prompt.

There are no restrictions on the type of information which can be entered here.

13 RESP.DEPT . . . .

The department held to be responsible for the defect.

This is a required entry. Therefore, you must enter something in response to this prompt. To change this entry after information has been entered into it, type 13 at the CHANGE prompt and enter the new information for this prompt.

There are no restrictions on the type of information which can be entered here.

14 HOURS NNN. NN

\* \* \* NEW ITEM ENTRY FOR QUALITY DEFECTS \* \* \*

The hours which needed to be expended to correct the defect.

This is not a required entry. You may skip it by pressing the Enter key. To change information already entered, enter 14 at the CHANGE prompt and enter the new information for this prompt.

An entry conforming to the following is acceptable: A numeric value with up to 2 decimal places allowed.

15 RATE NN. NN

The rate at which the hours are to be charged.

This is not a required entry. You may skip it by entering NULL. Pressing the Enter key alone will cause the default information, displayed at the bottom of the screen, to be entered. This prompt has a program called "D. RATE" which determines the default answer. You need to check with the programmer if how this program arrives at an answer is important to change information already entered, enter 15 at the CHANGE prompt and enter the new information for this prompt.

An entry conforming to the following is acceptable: A numeric value with up to 2 decimal places allowed.

16 LAB. COST NNNNNNNN. NN

Normally the product of hours \* rate; if desired this can be overridden, or if labour hours and rates are not input, a value can be put in this field.

This is not a required entry. You may skip it by entering NULL. Pressing the Enter key alone will cause the default information, displayed at the bottom of the screen, to be entered. This prompt has a program called "H. DOLLARS" which determines the default answer. The hours multiplied by the rate for the responsible, department. To Change information already entered, enter 16 at the CHANGE prompt and enter the new information for this prompt.

An entry conforming to the following is acceptable: A numeric value with up to 2 decimal places allowed.

17 MAT. COST

The cost of the materials for correction of the defect.

\* \* \* NEW ITEM ENTRY FOR QUALITY DEFECTS \* \* \*

This **is** not a required entry. You may skip it by pressing the Enter key. To change information already entered, enter 17 at the CHANGE prompt and enter the new information for this prompt.

An entry conforming to the following is acceptable: A numeric value with up to 2 decimal places allowed.

TOT. Cost

The sum of materials and labor dollars.

No response is required from you at this prompt. The program automatically "fills-in" a response. This information can only be changed from another entry program.

CHANGE

"CHANGE" prompt. Allows the user to enter ctrl-t or "TOP" to clear screen, ctrl-e or "END" to exit the screen with no update, ctrl-d or "DELETE" to delete the record, "FILE" or press <e> to file a record on disk.

If there is no need to change information on the screen, you may press the Enter key. Doing this will file the information on the screen to disk and present you with a clear screen.

To change information, enter the number associated with the item you wish to change and then enter the new information for the prompt you selected.

Entries conforming to the following are acceptable: Either any number of numerical digits. Or, the literal "FILE". Or, the literal "DELETE".

QD.ADD . \* \* \* NEW ITEM ENTRY FOR QUALITY DEFECTS \* \* \*

(I-1)

Q1 TYPE Q2 RPT.NO Q3 RPT.DATE

Q4 DEPT Q5 FUN

Q6 PROJ

Q7 HULL Q8 JOB

CODES: (TO ADD NEW CODE TYPE - PERFORM CODES - AT PROMPT 9-12)

Q9 DEFECT

10 CAUSE

11 DISP

12 COST

13 RESP.DEPT

14 HOURS

15 RATE

16 LAB.COST

17 MAT.COST

TOT.COST

TYPE OF REPORTING FORM ? .....



\* \* \* CHANGE ITEM ENTRY FOR QUALITY DEFECTS \* \* \*

\* \* \* CHANGE ITEM ENTRY FOR QUALITY DEFECTS \* \* \*

This program modifies entries for a given period to the basic detail level data.

Ø1 TYPE .....

This represents the type of quality defect reporting mechanism being utilized, i.e. The program in effect. At B.I.W. This could be "MDR" (material discrepancy report), etc.

This is a required entry. You must enter something in response to this prompt. Pressing the Enter key alone, will cause the last answer you entered for this same prompt on the previous screen and now displayed at the bottom of the screen to be entered. To change information already entered, enter 1 at the CHANGE prompt and enter the new information for this prompt.

There are no restrictions on the type of information which can be entered here.

Ø2 RPT.NO .....

This is the specific record number (memo #, mdr #, hpr #) which represents a unique report.

This is a required entry. Therefore, you must enter something in response to this prompt. To change this entry after information has been entered into it, type 2 at the CHANGE prompt and enter the new information for this prompt.

There are no restrictions on the type of information which can be entered here.

Ø4 RPT.DATE MM/DD/YY

The date of the report (mdr, hpr, etc) .

This is not a required entry. You may skip it by entering NULL. Pressing the Enter key alone, will cause the last answer you entered for this same prompt on the previous screen and

\* \* \* CHANGE ITEM ENTRY FOR QUALITY DEFECTS \* \* \*

now displayed at the bottom of the screen to be entered. To change information already entered, enter 4. at the CHANGE prompt and enter the new information for this prompt.

An entry conforming to the following is acceptable: A date. The ways of entering a date are: MM/DD/YY OR MM-DD-YY OR M/D/YY or M-D-YY or MMDDYY or MM/DD/YYYY or MM-DD-YYYY. (where M stands for the number of the month, D for the number of the day, and Y for the number of the year)

For example, to enter the date JANUARY 1, 1995, YOU may enter:

01/01/95 (or 1995)  
01-01-95 (or 1995)  
1/1/95 (or 1995)  
1-1-95 (or 1995)  
010195 (or 1995)

Any of the above entries may be reformatted by the entry screen program after you enter the date.

05 DEPT ....

The department making the report. This department must be on the department listing. If not the user must update the department listing. By pressing 3 on the main menu Screen.

This is a required entry. You must must enter something in response to this prompt. Pressing the Enter key alone, Will Cause the last answer you entered for this same prompt on the previous screen and now displayed at the bottom of the screen to be entered. To change information already entered, enter 5 at the CHANGE prompt and enter the new information for this prompt.

There are no restrictions on the type of information which can be entered here.

06 FUN .....

This is the location of the job being perform where the problem frist showed up.

This is not a required entry. You may skip it by entering NULL. Pressing the Enter key alone, will cause the last answer You entered for this same prompt on the previous screen and

\* \* \* CHANGE ITEM ENTRY FOR QUALITY DEFECTS \* \* \*

now displayed at the bottom of the screen to be entered. To change information already entered, enter 6 at the CHANGE prompt and enter the new information for this prompt.

There are no restrictions on the type of information which can be entered here.

07 HULL .....

The hull being reported on.

This is not a required entry. You may skip it by entering NULL. Pressing the Enter key alone, will cause the last answer you entered for this same prompt on the previous screen and now displayed at the bottom of the screen to be entered. To change information already entered, enter 7 at the CHANGE prompt and enter the new information for this prompt.

There are no restrictions on the type of information which can be entered here.

08 JOB .....

Identifies the particular job being performed where the defect, error showed up.

This is not a required entry. You may skip it by pressing the Enter key. To change information already entered, enter 8 at the CHANGE prompt and enter the new information for this prompt.

There are no restrictions on the type of information which can be entered here.

09 DEFECT .....

The defect code which is found on the code list which should be completed before entering any data. But if for any reason it is not on the list all the user has to do is type perform qa. codes. add which will bring up the code update list which can then be updated with the new code. Then the user should press (e) to return the input screen where they left off.

\* \* \* CHANGE ITEM ENTRY FOR QUALITY DEFECTS \* \* \*

This is a required entry. You must must enter something in response to this prompt. Pressing the Enter key alone, will cause the last answer you entered for this same prompt on the previous screen and now displayed at the bottom of the screen to be entered. To change information already entered, enter 9 at the CHANGE prompt and enter the new information for this prompt.

There are no restrictions on the type of information which can be entered here.

10 CAUSE .....

The cause defect in question. Once again if it does not exist on the code list and you want to update the list follow the same procedure explained in defect code (9).

This is a required entry. You must must enter something in response to this prompt. Pressing the Enter key alone, will cause the last answer you entered for this same prompt on the previous screen and now displayed at the bottom of the screen to be entered. To change information already entered, enter 10 at the CHANGE prompt and enter the new information for this prompt.

There are no restrictions on the type of information which can be entered here.

11 DISP .....

The disposition of the material in question. Once again if the disp. Code does not exist on the code list and you want to update list follow the same procedure explained in defect code (9).

This is a required entry. You must must enter something in response to this prompt. Pressing the Enter key alone, will cause the last answer you entered for this same prompt on the previous screen and now displayed at the bottom of the screen to be entered. To change information already entered, enter 11 at the CHANGE prompt and enter the new information for this prompt.

\* \* \* CHANGE ITEM ENTRY FOR QUALITY DEFECTS \* \* \*

There are no restrictions on the type of information which can be entered here.

12 COST .....

The cost responsibility in question. Once again if cost responsibility code does not exist on the code list to update that list follow the same procedure explained in defect code (9).

This is a required entry. You must must enter something in response to this prompt. Pressing the Enter key alone, will cause the last answer you entered for this same prompt on the previous screen and now displayed at the bottom of the screen to be entered. To change information already entered, enter 12 at the CHANGE prompt and enter the new information for this prompt.

There are no restrictions on the type of information which can be entered here.

13 RESP. DEPT . . . .

The department held to be responsible for the defect. This also has to on the department listing. This is done the same way as explained in for dept. (5) .

This is a required entry. You must must enter something in response to this prompt. Pressing the Enter key alone, will cause the last answer you entered for this same prompt on the previous screen and now displayed at the bottom of the screen to be entered. To change information already entered, enter 13 at the CHANGE prompt and enter the new information for this prcmpt.

This are no restrictions on the type of information which can be entered here.

14 HOURS NNN. NN

The hours which needed to be expended to a correct the defect.

\* \* \* CHANGE ITEM ENTRY FOR QUALITY DEFECTS \* \* \*

This is not a required entry. You may skip it by pressing the Enter key. To change information already entered, enter 14 at the CHANGE prompt and enter the new information for this prompt.

An entry conforming to the following is acceptable: A numeric value with up to 2 decimal places allowed.

15 RATE NN. NN

The rate at which the hours are to be charged.

This is not a required entry. You may skip it by entering NULL. Pressing the Enter key alone will cause the default information, displayed at the bottom of the screen, to be entered. This prompt has a program called "D.RATE" which determines the default answer. You need to check with the programmer if how this program arrives at an answer is important. To change information already entered, enter 15 at the CHANGE prompt and enter the new information for this prompt.

An entry conforming to the following is acceptable: A numeric value with up to 2 decimal places allowed.

16 LAB. COST NNNNNNN. NN

Normally the product of hours \* rate; if desired this can be overridden, or if labor hours and rates are not input, a value can be put in this field.

This is not a required entry. You may skip it by entering NULL. Pressing the Enter key alone will cause the default information, displayed at the bottom of the screen, to be entered. This prompt has a program called "H.DOLLARS" which determines the default answer. The hours multiplied by the rate for the responsible department. To change information already entered, enter 16 at the CHANGE prompt and enter the new information for this prompt.

An entry conformation to the following is acceptable: -A numeric value with up to 2 decimal places allowed.

17 MAT. COST

The cost of the materials for correction of the defect.

This is not a required entry. You may skip it by pressing the

\* \* \* CHANGE ITEM ENTRY FOR QUALITY DEFECTS \* \* \*

Enter key. To change information already entered, enter 17 at the CHANGE prompt and enter the new information for this prompt.

An entry conforming to the following is acceptable: A numeric value with up to 2 decimal places allowed.

TOT. COST

The sum of materials and labor. dollars.

No response is required from you at this prompt. The program automatically "fills-in" a response. This information can only be changed from another entry program.

CHANGE

"CHANGE" prompt. Allows the user to enter ctrl-t or "TOP" to clear screen, ctrl-e or "END" to exit the screen with no update, ctrl-d or "DELETE" to delete the record, "FILE" or press <e> to file a record on disk.

If there is no need to change information on the screen, you may press the Enter key. Doing this will file the information on the screen to disk and present you with a clear screen.

To change information, enter the number associated with the item you wish to change and then enter the new information for the prompt you selected.

Entries conforming to the following are acceptable: Either any number of numerical digits. Or, the literal "FILE". Or, the literal "DELETE".

QA.DEPT.	ADD	*	*	*	DEPTARTMENT	DATA	upDATE	-	QUALITY	DEFECTS	*	*.
01	DEPT				1500	02	NAME		PIPE	SHOP		
03	DEPT.	GRP										
04	TOT-	HOURS										
05	RATE				10.00							



\* \* \* DEPARTMENT DATA UPDATE - QUALITY DEFECTS \* \* \*

\* \* \* DEPARTMENT DATA UPDATE - QUALITY DEFECTS \* \* \*

The program is used to add, change or delete department information used by the quality defect program. This information is provided by user company itself and can contain any number of departments.

Q1 DEPT .....

The department in question.

This is a required entry. Therefore, you must enter something in response to this prompt. To change this entry after information has been entered into it, type 1 at the CHANGE prompt and enter the new information for this prompt.

There are no restrictions on the type of information which can be entered here.

Q2 NAME

The name of the department.

This is not a required entry. You may skip it by pressing the Enter key. To change information already entered, enter 2 at the CHANGE prompt and enter the new information for this prompt.

There are no restrictions on the type of information which can be entered here.

Q3 DEPT.GRP

The group the department belongs to ... Can be any code designation desired.

This is not a required entry. You may skip it by pressing the Enter key. To change information already entered, enter 3 at the CHANGE prompt and enter the new information for this prompt.

There are no restrictions on the type of information which can

\* \* \* DEPARTMENT DATA UPDATE - QUALITY DEFECTS \* \* \*

be entered here.

04 TOT.HOURS NNNNN.NN

The total hours from this department for this month.

This is not a required entry. You may skip it by pressing the Enter key. To change information already entered, enter 4 at the CHANGE prompt and enter the new information for this prompt.

An entry conforming to the following is acceptable: A numeric value with up to 2 decimal places allowed.

05 RATE

The rate at which the hours are to be charged.

This is not a required entry. You may skip it by pressing the Enter key. To change information already entered, enter 5 at the CHANGE prompt and enter the new information for this prompt.

An entry conforming to the following is acceptable: A numeric value with up to 2 decimal places allowed.

CHANGE

"CHANGE" prompt. Allows the user to enter ctrl-t or "TOP" to clear screen, ctrl-e or "END" to exit the screen with no update, ctrl-d or "DELETE" to delete the record, "FILE" or press <e> to file a record on disk.

If there is no need to change information on the screen, you may press the Enter key. Doing this will file the information on the screen to disk and present you with a clear screen.

To change information, enter the number associated with the item you wish to change and then enter the new information for the prompt you selected.

QA CODE. ADD

. \* \* \* CODE UPDATE - QUALITY DEFECTS \* \* \*(I-1)

01	CODE	DE10
02	NAME	LOST/STOLEN/MISSING MATERIAL
03	GRP	DE10

CHANGE ?

\* \* \* CODE UPDATE - QUALITY DEFECTS \* \* \*

\* \* \* CODE UPDATE - QUALITY DEFECTS \* \* \*

The program is used to add, change or delete codes used by the quality defect program. This is the same as the (3)"DEPARTMENT DATA UPDATE".

01 CODE . . . . .

This is the key to the code file - it consists of 2 alpha characters followed by up to three numeric codes. There are four types of codes 1) de - defect, 2) ca - cause, 3) di -disposition, 4) cr - cost responsibility.

This is a required entry. Therefore, you must enter something in response to this prompt. To change this entry after information has been entered into it, type 1 at the CHANGE prompt and enter the new information for this prompt.

An entry conforming to the following is acceptable: 2 alphabetical characters followed by up to 4 of any kind of alpha-numeric characters.

02 NAME . . . . .

The name (description) of what the code represents.

This is not a required entry. You may skip it by pressing the Enter key. To change information already entered, enter 2 at the CHANGE prompt and enter the new information for this prompt.

There are no restrictions on the type of information which can be entered here.

03 GRP . . . . .

The group code represents the summary level of a group of codes, i.e. Defect codes 20a through 20f would all be one group, grp = de20.

This is not a required entry. You may skip it by pressing the Enter key. To change information already entered, enter 3 at the CHANGE prompt and enter the new information for this prompt.

\* \* \* CODE UPDATE - QUALITY DEFECTS \* \* \*

There are no restrictions on the type of information which can be entered here.

CHANGE

"CHANGE" prompt. Allows the user to enter ctrl-t or "TOP" to clear screen, ctrl-e or "END" to exit the screen with no update, ctrl-d or "DELETE" to delete the record, "FILE" or press (e) to file a record on disk.

If there is no need to change information on the screen, you may press the Enter key. Doing this will file the information on the screen to disk and present you with a clear screen.

To change information; enter the number associated with the item you wish to change and then enter the new information for the prompt you selected.

Entries conforming to the following are acceptable: *Either* any number of numerical digits. Or, the literal "FILE". or, the literal "DELETE".

**\* \* \* QUALITY DEFECTS - REPORTS SUBMENU \* \* \***  
**14:00:13 11 APR 1986**

**BY8PROG**

1. LISTING OF CODES BY CODE GROUP
2. LISTING OF DEPARTMENTAL DATA BY DEPARTMENT
3. LISTING OF ERRORS BY-TYPE OF REPORT

**F5-Toggle= MAIN/LAST menu    Ctl-F5=TCL    F9.END menu    Retrn=Run menu option**

## REPORTS Q.A.

This is a program that is generated by the user. By that, we mean the user is able to create their own programs to generate other monthly reports besides the History update reports.

Listing of Codes by Code Group

Listing of Departmental Data by Department

These are just examples of a few that can be done. In order to create your own program, the user must first become familiar with Bid. Menu command, which is discussed in Run-time Revelation manual.

\* ,\* \* QUALITY DEFECTS PROGRAM - MAIN MENU \* \* \*  
11: 02:52 15 DEC 1986

DD

1. ADD NEW DETAIL RECORDS
2. CHANGE DETAIL RECORDS
3. - - DEPARTMENT DATE UPDATED
4. CODE DATE UPDATE
5. REPORT MENU
6. RUN HISTORY UPDATE
7. HISTORY INQUIRY
8. EXIT REVALATION

Enter password



## Q.A. HISTORY CREATE

This is menu choice 6 and should only be selected when you are ready to run a month's worth of data through the program. To use this program, it asks you for a password which is "HIST"; after that it will prompt you for the beginning month's date and also the ending month's date; then the machine is off and running. So make sure of the dates that you are entering because there is no stopping the process once you begin it for that month. Once the program has finished it will prompt you for a drive (e.g. A, B, C) to store that month's date on. This will enable you to save the month's worth data for future reference.. But you are not able to update a filed month's data and then run it through the history update program again, because the program would treat it as a new month which it is not.

QD-HIST

\* \* \* HISTORY RECORD INQUIRY \* \* \*

(I-1)

01 RANK CARANK  
02 MM-YY 12-85

03 RANKS	04 MATERIAL	05 LABOR	06 TOTAL
01> CA90	01> 2,614.81	01> .00	01> 2,614.81
02> CA20	02> 1,845.00	02> .00	02> 1,845.00
03> CA20N	03> 658.40	03> .00	03> 658.40
04> CA40F	04> 282.58	04> .00	04> 282.58

\* \* \* HISTORY RECORD INQUIRY \* \* \*

\* \* \* HISTORY RECORD INQUIRY \* \* \*

This program keeps a history of the four highest de-rank and ca-rank by month. Enables the user to quickly research any past history by simply typing in the correct data.

01 RANK . . . . .

At this prompt enter either derank or carank.

This is a required entry. Therefore, you must enter something in response to this prompt. To change this entry after information has been entered into it, type 1 at the CHANGE prompt and enter the new information for this prompt.

There are no restrictions on the type of information which can be entered here.

02 MM-YY MM-YY

Enter the month and year that you are interested in looking at.

This is a required entry. Therefore, you must enter something in response to this prompt. To change this entry after information has been entered into it, type 2 at the CHANGE prompt and enter the new information for this prompt.

An entry conforming to the following is acceptable: 2 numerical digits followed by the pattern code: -2N.

WHICH ERR. 1 VALUE

Enter WHICH ERR. 1 VALUE you wish to change.

This is not a required entry. Pressing the enter key returns you to the change prompt.

To change an entry, enter the number of the line or column you wish to change at the WHICH ERR.1 VALUE prompt. The number you are looking to enter should be followed by a ">" on the screen. For example:

01> DATE ENTRY 02> DATE ENTRY

\* \* \* HISTORY RECORD INQUIRY \* \* \*

(OR)

01> DATA ENTRY  
02> DATA ENTRY  
03> DATA ENTRY

You will have to re-enter the information for any prompt preceeding the entry you wish to change (or just press the enter key if the preceeding prompts have defaults the same as the entries displayed on the screen). When you are prompted at the bottom of the screen for the entry you wish to change, enter the new information.

The "WHICH VALUE" prompt also allows you to enter "ADD" to add values; "I" (for Insert) followed by the number of the value you wish to insert before; or "D" (for Delete) followed by the number of the value you wish to delete; or "DONE" to return to the change prompt; or "CLEAR" to wipe out ALL existing values listed after the prompt.

If you are changing already existing information, you will have to enter the number of the row or column of information you wish to change at the "WHICH VALUE" PROMPT. The number you are looking to enter should be followed by a ">" on the screen. See WHICH VALUE prompt.

When you are prompted at the bottom of the screen for WHICH ERR.1 VALUE, enter the new information.

Entries conforming to the following are acceptable: Either a number between 1 and 9999. Or, the literal "ADD". Or, the literal: "I" followed by any number of numerical digits. Or, the literal: "D" followed by any number of numerical digits. Or, the literal "CLEAR". Or, the literal "DONE". Or, the literal "F". Or, the literal "E".

03 RANKS . . .

This is not a required entry. You may skip it by pressing the Enter key. To change information already entered, enter 3 at the CHANGE prompt and enter the new information for this prompt.

If you are changing already existing information, you will have to enter the number of the row or column of information

\* \* \* HISTORY RECORD INQUTRY \* \* \*

you wish to change at the " WHICH VALUE " PROMPT. The number you are looking to enter should be followed by a ">" on the screen. See WHICH VALUE prompt.

When you are prompted at the bottom of the screen for Q3 RANKS, enter the new information.

There are no restrictions on the type of information which can be entered here.

WHICH ERR. 2 VALUE

Enter WHICH ERR. 2 VALUE you wish to change.

This is not a required entry. Pressing the enter key returns you to the change prompt.

To change an entry, enter the number of the line or column you wish to change at the WHICH ERR.2 VALUE prompt. The number you are looking to enter should be followed by a ">" on the screen. For example:

Q1> DATA ENTRY Q2> DATA ENTRY

(OR)

Q1> DATA ENTRY  
Q2> DATA ENTRY  
Q3> DATA ENTRY

You will have to re-enter the information for any prompt preceeding the entry you wish to change (or just press the enter key if the preceeding prompts have defaults the same as the entries displayed on the screen). When you are prompted at the bottom of the screen for the entry you wish to change, enter the new information.

The "WHICH VALUE" prompt also allows you to enter "ADD" to add values; "I" (for Insert) followed by the number of the value you wish to insert before; or "D" (for Delete) followed by the number of the value you wish to delete; or "DONE" to return to the change prompt; or "CLEAR" to wipe out ALL existing values listed after the prompt.

If you are changing already existing information, you will have to enter the number of the row or column of information

\* \* \* HISTORY RECORD INQUIRY \* \* \*

you wish to change at the "WHICH VALUE" PROMPT. The number you are looking to enter should be followed by a ">" on the screen. See WHICH VALUE prompt.

When you are prompted at the bottom of the screen for WHICH ERR.2 VALUE, enter the new information.

Entries conforming to the Following are acceptable: Either a number between 1 and 9999. Or, the literal "ADD". Or the literal: " I" followed by any number of numerical digits. Or, the literal : "D" followed by any number of numerical digits. or, the literal "CLEAR". Or, the literal "DONE" Or the literal "F". Or, the literal "B".

04 MATERIAL

This is not a required entry. You may skip it by pressing the Enter key. To change information already entered, enter 4 at the CHANGE prompt and enter the new information for this prompt.

If you are changing already existing information, you will have to enter the number of the row or column of information you wish to change at the "WHICH VALUE" PROMPT. The number you are looking to enter should be followed by a ">" on the screen. See WHICH VALUE prompt.

When you are prompted at the bottom of the screen for 04 MATERIAL, enter the new information.

An entry conforming to the following is acceptable: A numeric value with up to 2 decimal places allowed.

WHICH ERR. 3 VALUE

Enter WHICH ERR.3 VALUE you wish to change.

This is not a required entry. Pressing the enter key returns you to the change prompt.

To change an entry, enter the number of the line or column you wish to change at the WHICH ERR.3 VALUE prompt. The number you are looking to enter should be followed by a ">" on the screen. For example:

01> DATA ENTRY 02> DATA ENTRY

\* \* \* HISTORY RECORD INQUIRY \* \* \*

(OR)

01> DATA ENTRY  
02> DATA ENTRY  
03> DATA ENTRY

You will have to re-enter the information for any prompt preceeding the entry you wish to change (or just press the enter key if the preceeding prompts have defaults the same as the entries displayed on the screen). When you are prompted at the bottom of the screen for the entry you wish to change, enter the new information.

The "WHICH VALUE" prompt also allows you to enter "ADD" to add values; "I" (for Insert) followed by the number of the value you wish to insert before; or "D" (for Delete) followed by the number of the value you wish to delete; or "DONE" to return to the change prompt; or "CLEAR" to wipe out ALL existing values listed after the prompt.

If you are changing already existing information, you will have to enter the number of the row or column of information you wish to change at the "WHICH VALUE" PROMPT. The number you are looking to enter should be followed by a ">" on the screen. See WHICH VALUE prompt.

When you are prompted at the bottom of the screen for WHICH ERR.3 VALUE, enter the new information.

Entries conforming to the following are acceptable: Either a number between 1 and 9999. Or, the literal "ADD". Or, the literal: "I" followed by any number of numerical digits. Or, the literal: "D" followed by any number of numerical digits. Or, the literal "CLEAR". Or, the literal "DONE". Or, the literal "F". Or, the literal "B".

05 LABOR

This is not a required entry. You may skip it by pressing the Enter key. To change information already entered, enter 5 at the CHANGE prompt and enter the new information for this prompt.

If you are changing already existing information, you will have to enter the number of the row or column of information

\* \* \* HISTORY RECORD INQUIRY \* \* \*

you wish to change at the "WHICH VALUE" PROMPT. The number you are looking to enter should be followed by a ">" on the screen. See WHICH VALUE prompt.

When you are prompted at the bottom of the screen for 05 LABOR, enter the new information.

An entry conforming to the following is acceptable: A numeric value with up to 2 decimal places allowed.

WHICH ERR. 4 VALUE

Enter WHICH ERR. 4 VALUE you wish to change.

This is not a required entry. Pressing the enter key returns you to the change prompt.

To change an entry, enter the number of the line or column you wish to change at the WHICH ERR. 4 VALUE prompt. The number you are looking to enter should be followed by a ">" on the screen. For example:

01> DATA ENTRY 02> DATA ENTRY

(OR)

01> DATA ENTRY  
02> DATA ENTRY  
03> DATA ENTRY

You will have to re-enter the information for any prompt preceeding the entry you wish to change (or just press the enter key if the preceeding prompts have defaults the same as the entries displayed on the screen). When you are prompted at the bottom of the screen for the entry you wish to change, enter the new information.

The "WHICH VALUE" prompt also allows you to enter "ADD" to add values; "I" (for Insert) followed by the number of the value you wish to insert before; or "D" (for Delete) followed by the number of the value you wish to delete; or "DONE" to return to the change prompt; or "CLEAR" to wipe out ALL existing values listed after the prompt.

If you are changing already existing information, you will have to enter the number of the row or column of information you wish to change at the "WHICH VALUE" PROMPT. The number you are looking to enter should be followed by a ">" on the



\* \* \* HISTORY RECORD INQUIRY \* \* \*

screen. See WHICH VALUE protmpt.

When you are prompted at the bottom of the screen for WHICH ERR. 4 VALUE, enter the new information.

Entries conforming to the following are acceptable: Either a number between 1 and 9999. Or, the literal "ADD". Or, the literal: "I" followed by any any number of numercial digits. Or, the literal : "D" followed by any number of numerical digits. Or, the literal "CLEAR". Or, the literal "DONE". Or, the literal "F". Or, the literal "B".

06 TOTAL

.

This is not a required eNTRY. You may skip it by pressing the Enter key. To change information already entered, enter c at the CHANGE prompt and enter the new information for this prompt.

If you are changing already existing information, you will have to enter the number of the row or column of information you wish to change at the "WHICH VALUE" PROMPT. The number you are looking to enter should be followed by a ">" on the screen. See WHICH VALUE prompt.

When you are prompted at the bottom of the screen for 06 TOTAL, enter the new information.

An entry conforming to the following is acceptable: A numercial value with up to 2 decimal places allowed.

CHANGE

" CHANGE" prompt. Allows the user to enter ctrl-t or "TOp" to clear screen, Ctrl-e or "END" to exit the screen with no update, ctrl-d or "DELETE" to be delete the recotrd, "FILE" or **press <e> to file a recodrd on disk.**

If there is no need to change information on the screen, you may press the Enter key. Doing this will file the information on the screen to disk and present you with a clear screen.

To change information, enter the number associated with the item you wish to change and then enter the new information for the prompt you selected.

\* \* \* HISTORY RECORD INQUIRY \* \* \*

Entries conforming to the following are acceptable: Either the literal "FILE". Or, the literal "DELETE".

OFF

Menu choice 8 is very self-explanatory. It will log you off the program. If it is hit accidentally, don't worry about the information because it is automatically saved.

## BENEFITS/FUTURE USE

When this project was undertaken in February 1985, we did not realize the task relating to documentation of savings from corrective actions would require more time than the length of this project. The problem we have is with the recurrence of like jobs. It is usually several months between like jobs, which extends the time to see if corrective action on a particular problem was in fact correct.

Therefore we have opted to exclude that particular task from this final report. We will include some anticipated benefits along with some future applications from both Marinette Marine and Bath Iron Works.

### BENEFITS

The benefits listed below are only anticipated ones from BIW and Marinette Marine:

- o The ability to see an error and its associated costs for any given period.
- o Used as a tool in correcting defects. Also to see if corrective action taken was indeed effective.
- o Provide users with the ability to spot trends for future planning.
- o Aid production supervisors in spotting problem areas of work.
- o Increase defect awareness.
- o Reduce rework hours.
- o Help reduce costly errors.

### APPLICATIONS :

During this project we used a pilot department on which the data was collected. Of the data collected, it represented only a small portion of the total data available from that department. What we found from such a small sample has been encouraging, as far as trend analysis and also the highlighting of costly errors. This is just the start of the application possibilities for just using a small subset of a pilot department. A large or small shipyard may wish to use this program on a department basis or on a yard-wide basis all depending on how they want to see the information broken down.